

Microbial growth on a first surface of a medical device in indirect contact with tissue such as a prosthesis and particularly a valve, cartridge or ring in a voice prosthesis, is inhibited by providing antimicrobial activity at a level sufficient to retard growth of a microbial film by dispersing an antimicrobial agent such as triclosan or butyl paraben dispersed in a medical grade silicone elastomer. The valve, ring or cartridge is in contact with body fluids containing microorganisms and nutrients therefor. The antimicrobial surface can interfere with or inhibit the growth of a biofilm, bacterial layer or a yeast layer. The body of the prosthesis may also contain an antimicrobial surface as long as it is non-toxic to the tissue it contacts.